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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,800	04/15/2004	Karlheinz Schreyer	071308.0532	6652

31625 7590 11/30/2005

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EXAMINER

HERRERA, DIEGO D

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/824,800

Applicant(s)

SCHREYER ET AL.

Examiner

Diego Herrera

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on April 15, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 2 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on April 15, 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The abstract of the disclosure is objected to because Line 6 of the abstract has the word "form" and it is used inappropriately; the examiner recommends the word "from" to be congruent with context. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: In line 10 page 3 of the disclosure the article "a" is not necessary please erase, since it fragments the context.
4. The title of the invention is objected to. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Procedure for registering a new subscriber in a radio system through routers".

Appropriate correction is required.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claims 5 and 10 use the word "telegram(s)" which lacks antecedent basis with respects to claims 3 and 1 respectively, it is recommended to replace word with "signal(s)".

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-7, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Lynch (U.S. Patent # 6,055,429).

8. Regarding claim 1, Lynch shows and discloses a method for registering a new subscriber in a radio system having a central system and a plurality of subscribers (Fig. 1, note: figure 1 shows multiple users in the vicinity and the base station being the central system providing radio communication service), said central system and said subscribers comprise a transmission and a receiving device (Fig. 1 & 4, note: base station communicating with user 34 in figure 1, also block diagram of components in the user equipment has a transceiver), said subscribers can establish direct radio contact with the central system or indirect contact via one or more other subscribers as routers (Fig. 1, note: objects: 40, 38, 37, 39, 34, and base {indirect contact}, col. 3, lines: 45-52 {direct & indirect capabilities}), said method for registering comprising the following steps:

a. A new subscriber sends a search signal to all subscribers that can be reached and selects a first router from subscribers that respond (col. 4, lines: 58-63, note: this is only talking about sending a signal and creating a list of possible routing paths obtained from an audit of proximal subscribers. Fig. 1, shows a

plurality of subscribers that establish a link to a subscriber and then to a central communication system);

b. The new subscriber sends an inherent registration request to the first router in the form of a message, said message contains a provisional address and an identifier of the central system assigned to the first router (Abstract, col. 1, lines: 22-27, col. 3, lines: 15-52, and col. 4, lines: 15-67, where Lynch discusses that the mobile is operating to make a call in a conventional mobile system via the base 10, figure 1 and other mobiles, therefore, including a registration message and associated addresses);

c. After the registration request from the first router has been forwarded to the central system, the central system inherently decides whether to accept or reject the registration request (Fig. 5, col. 10, lines: 13-18 & 32-36, where Lynch discusses audit buffers filled with routers available to complete the call thus if not available then inherently denying the registration), and

d. If accepted, the central system sends a response via the first router which contains a subscriber number and a system identifier which is accepted and stored by the new subscriber (Abstract, col. 4, lines: 58-67, col. 5, lines: 1-4, note: these selected sentences explain that information is sent that user respond by sending information {i.e. number id, power levels, etcetera...} back to the new user which in turn stores and analysis relationship within the network).

9. Consider claim 3, and as applied to claim 1 above, Lynch shows and discloses wherein after the new subscriber sends the search signal and the subscribers located

with in range respond by sending their address and an identifier of their system to the new subscriber, the new subscriber store the addresses and the associated system identifications in a list of potential routers, for which it defines the order in accordance with a pre-specified evaluation algorithm, and the new subscriber selects its first router from the list in accordance with its order and if its registration request is rejected by the system of the first router, selects a further router in each case in accordance with the pre-specified order of the list for sending the registration request again (Abstract; col. 1, lines: 22-27).

10. Consider claim 4, and as applied to claim 3 above, Lynch shows and discloses wherein the new subscriber defines the order of potential routers on its list in accordance with the strength of the response signal (Abstract; col. 4, lines: 52-58, note: the power transmission mentioned in reference is understood as signal strength, also, "the multilevel audit buffering provides for establishment of call vectoring paths between a seeking transceiver unit and a desired transceiver unit", the list is created by doing such audit buffering).

11. Consider claim 5, and as applied to claim 3 above, Lynch shows and discloses wherein the new subscriber first checks whether a central system is responding to its search telegram and that in this case it puts the central system at the top of its list (col. 1, lines: 22-27, note: the selected section mentions that communicating with cell site or base unit, which is considered to be part of and/or a central system, is done as the initial step in establishing communication between the mobile and networks depending on signal strength (transmission power) and proximity).

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12. Consider claim 6, and as applied to claim 3 above, Lynch shows and discloses wherein the new subscriber defines for the order of its list of potential routers how many hierarchy stages away each responding system is from its central system (col. 2, lines: 47-55, note: the system uses a multilevel audit making a list of potential routers. col. 4, lines: 58-63, note: the information provided is able to create a vector to desired system in order to establish communication).

13. Consider claim 7, and as applied to claim 3 above, Lynch shows and discloses wherein the new subscriber evaluates the system identifiers of the responding subscribers for the order of its list (col. 4, lines 64-67, continuation, col. 5, lines: 1-9, note: the audit helps new subscriber be able to determine desired router).

14. Consider claim 10, and as applied to claim 1 above, Lynch shows and discloses wherein the telegrams of the new subscriber in each case with their provisional address, are forwarded in precisely the same way as the telegrams with a unique address, in which case on the way to the central system the routers of the subscribers through which the messages pass are marked so that the response from the central system to the registering subscriber travels back on the same path (col. 2, lines: 21-27; col. 2, lines: 47-55, col. 8, lines: 66-67, continuation, col. 9, lines: 1-7, note: these selected sections are descriptive of a system that stores information with address or identifiers of the vector path define by new user or subscriber establishing communication with desired central system in which communication is set back and forth from A-B-C to C-B-A, since the Fig. 4 shows a duplex system and Fig. 5 shows path consideration where if

the path is broken another is chosen but if not it uses the same path to transmit information).

15. Consider claim 11, and as applied to claim 10 above, Lynch shows and discloses wherein the subscribers through which the messages pass are marked by collecting their relevant addresses in the forwarded telegram (Abstract, Fig. 1 & 5, col. 2, lines: 47-55, col. 4, lines: 58-63 note: these reference shows and discloses a list of identifiers of different subscribers near the vicinity that is made by auditing, which said list is used to plot a location vector based on transmitting power ratings and other information necessary to establish communication with central system. Hence, the list is marking said subscribers with greatest transmitting power and addresses for communication from auditing).

16. Consider claim 12, and as applied to claim 10 above, Lynch shows and discloses wherein the subscribers through which the messages pass are marked by an identifier which allows routing with distributed lists (Abstract, Fig. 1 & 5, col. 2, lines: 47-55, col. 4, lines: 58-63 note: these reference shows and discloses a list of identifiers of different subscribers near the vicinity that is made by auditing, which said list is used to plot a location vector based on transmitting power ratings and other information necessary to establish communication with central system. Hence, the list is marking said subscribers with greatest transmitting power and addresses for communication from auditing).



***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

20. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch (U.S. Patent # 6,055,429), and in view of Larsen et al. (U.S. Patent # 6,473,617 B1).

21. Consider claim 9, and as applied to claim 8 above, Lynch does not disclose and shows wherein the new subscriber notifies the central system about the field strength with which it is receiving the signals from the subscribers that it can reach, and the central system creates from this data an optimum system configuration for transmission of messages via routers and notifies the subscribers of the radio system of this configuration.

22. Nevertheless, Larson et al. shows and discloses the new subscriber notifies the central system about the field strength with which it is receiving the signals from the subscribers that it can reach, and the central system creates from this data an optimum system configuration for transmission of messages via routers and notifies the subscribers of the radio system of this configuration (col. 8, lines: 25-38, note: the word "hear" is understood to be strength, id, and other information transmitted between the new user and other users in the vicinity to be able to communicate).

23. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teaching of Lynch to send information received by the new user about other subscribers that it can reach, and the central system creating from this data an optimum system configuration for transmission of messages via routers and notifies the subscribers of the radio system of this configuration taught by Larson et al. for the purpose of the base station control the levels of modulation efficiency and the associated required carrier to interference ratio used by itself and the mobile stations in its area (col. 8, lines: 40-43).

***Conclusion***

***Allowable Subject Matter***

24. Claims 2 & 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following is prior art considered pertinent:

- Lopponen et al. (U.S. Patent # 5,781,860), "Method for controlling subscriber station in a radio-telecommunications system".
- Rhodes et al. (U.S. Patent # 6,252,859 B1), "Radio communications system".
- Schroderus et al. (U.S. Patent # 5,822,682), "Communicating on a direct mode".
- Schroderus (U.S. Patent # 5,983,072), "Establishing a telecommunications connection in a mobile communication system".
- Williams et al. (U.S. Patent # 5,995,849), "Direct wireless communication system and method of operation".
- Kinnunen et al. (U.S. Patent # 6,230,015 B1), "Picking up of mobile stations from a direct mode channel".
- Ulug (U.S. Patent # 4,534,061), "Deterministic multi-access method for a decentralized mobile radio system".

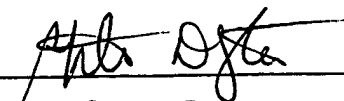
- Lehmusto et al. (U.S. Patent # 5,907,794), "Controlling a subscriber station on a direct mode channel".
- Lehmusto et al. (U.S. Patent # 5,771,463), "Method for controlling a subscriber station in a radio".
- Chari et al. (U.S. Patent # 6,704,301 B2), "Method and apparatus to provide routing protocol for wireless devices".
- Larsen et al. (U.S. Patent # 6,097,703), "Multi-hop packet radio networks".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diego Herrera whose telephone number is (571) 272-0907. The examiner can normally be reached on Monday-Friday, 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William G. Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.H.

  
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STEPHEN D'AGOSTA  
PRIMARY EXMR  
11-28-05